

What is claimed is:

Sub 5
1. A method for providing telecommunications services, the method comprising the steps of:

generating a compiled representation of a textual description in a mark-up language of operations for performing a call feature or service,

10 instantiating an object (hereinafter "context object") that

(i) accesses the compiled representation in response to one or more events,
and

15 (ii) effects execution of the operations.

2. A method according to claim 1, comprising instantiating the context object in response to a boundary event with respect to the telecommunications service or feature.

20 3. A method according to claim 2, comprising instantiating the context object in response to an event indicative of any of call origination or call termination.

4. A method according to claim 1, comprising passing notification of at least selected events to the context object.

25 5. A method according to claim 4, responding with the context object to at least selected notifications by effecting execution of further operations with respect to the call feature or service.

6. A method according to claim 4, identifying as a boundary event an event notification of which does not result in the effecting of execution of further operations with respect to the call feature or service by the context object.

5 7. A method according to claim 1, comprising

instantiating the context object in response to a boundary event with respect to the telecommunications service or feature, and

10 passing notification of at least selected events to the context object.

8. The method of claim 7, wherein the textual description defines a set of rules and actions for providing the telecommunication service.

15 9. The method of claim 8, wherein the textual description defines a call policy associated with a subscriber.

10. The method of claim 10, wherein the event includes a call control event indicative of a signal received from an external device.

20 11. The method of claim 10, wherein the external device is a telecommunications switch.

25 12. A method for providing telecommunications services, the method comprising the steps of:

generating a compiled representation of a textual description in a mark-up language of operations for performing any of a call feature or service,

responding to an event indicative of a boundary of a telecommunications service or feature for instantiating an object (hereinafter "context object") to effect execution of that service or feature,

5 accessing, with the context object, handler logic operations embodied in the compiled representation, the handler logic operations controlling any of the accessing, processing and execution of further instructions necessary to effect execution of the service or feature.

10 13. A method according to claim 12, comprising accessing call origination handler logic operations embodied in the compiled representation to effect execution of an originated call.

15 14. A method according to claim 12, comprising accessing call origination handler logic operations embodied in the compiled representation to effect execution of a terminated call.

20 15. A method according to claim 12, comprising accessing, with the context object and in accord with the handler logic operations, further operations embodied in the compiled representation, the further operations effecting further of execution features or services.

25 16. The method of claim 12, wherein the textual description defines a set of rules and actions for providing the telecommunication service.

 17. The method of claim 16, wherein the logic textual description defines a call policy associated with a subscriber.

30 18. The method of claim 17, wherein the event includes a call control event indicative of a signal received from an external device.

19. The method of claim 18, wherein the external device is a telecommunications switch.

20. The method of claim 12, wherein the mark-up language is any of HTML, XML or any extension thereof.

21. The method of claim 12, wherein the compiled representation is implemented in a C++ environment.

22. A method for providing telecommunications services, the method comprising the steps of:

generating a compiled representation of a textual description in a mark-up language of operations for performing any of a call feature or service,

responding to an event indicative of a boundary of a telecommunications service or feature for instantiating an object (hereinafter "context object") to effect execution of that service or feature,

accessing, with the context object, any handler logic operations embodied in the compiled representation, the handler logic operations controlling any of the accessing, processing and execution of further instructions necessary to effect execution of the service or feature,

accessing, with the context object and in accord with the handler logic operations, feature logic operations embodied in the compiled representation, the feature logic operations executing additional features or services,

resolving at run-time a type of at least one selected method required for effecting the execution of an feature logic operation referenced by the compiled representation.

23. The method of claim 22, further comprising utilizing virtual functions to facilitate such resolution.

24. A method for providing telecommunications services, comprising the steps of:

5 providing a textual description in a mark-up language of a set of logic instructions describing a telecommunications service,

10 parsing the textual description to generate a compiled representation of the logic instructions, and

15 instantiating an object (hereinafter "feature context object") in response to an event that accesses the compiled representation to effect execution of the telecommunication service defined by the logic instructions.

25. The method of claim 24, wherein the telecommunication service is any of a call, a call feature, and subscriber or feature administration.

26. The method of claim 24, wherein the event is a call progress event occurring with respect to the telecommunication service.

27. The method of claim 24, wherein the feature context object maintains information regarding present state of an on-going telecommunications service.

28. The method of claim 24, wherein the mark-up language is any of HTML, XML, or any extension thereof.

29. A method for providing telecommunications services, comprising the steps of:

30 providing a textual description in a mark-up language of a set of logic instructions describing a telecommunications service, and

instantiating in response to an event an object embodying a compiled representation of the logic instructions and effecting execution of the telecommunications service.

5

30. The method of claim 29, wherein the telecommunication service is any of a call, a call feature, and subscriber or feature administration.

10

31. The method of claim 30, wherein the event is a call progress event occurring with respect to the telecommunication service.

32. A telecommunications system, comprising:

15

a call control module that controls a call processing context associated with a subscriber, and

20

a call feature module in communication with the call control module, the feature control module accessing a compiled representation of textual description in a mark-up language of logic defining a telecommunication service provided to a subscriber in response to an event to effect execution of the service.

25

33. The telecommunications system of claim 32, wherein the event is a call progress event provided by the call control module in response to a signal received with respect to status of an on-going telecommunication service.

34. The system of claim 33, wherein the on-going telecommunication service is an active telephone call.

30

35. The system of claim 33, wherein an external device generates the signal with respect to status of an on-going telecommunication service.

36. The system of claim 35, wherein the external device is a telecommunications switch.
- 5 37. The system of claim 32, further comprising a parser for receiving a textual description of logic defining a telecommunication service and generating a compiled representation therefrom.
- 10 38. The system of claim 37, wherein the telecommunications service is any of a call, a call feature, and subscriber or feature administration.
- 15 39. The system of claim 32, wherein the call feature module instantiates an object (hereinafter "feature context object") that accesses the compiled representation to determine at least an action to be effected for providing the telecommunication service.
40. The system of claim 37, wherein the compiled representation includes objects in a C++ programming environment.